of operations which are identical to those carried out when the IP has been selected and retrieved from local storage by means of the user unit.

Initially, the control unit determines whether the user's financial account is up-to-date. If not, the user unit, and thus the user, are notified and all further operations by the control unit are interrupted until the outstanding account is cleared up.

If the account is current, the IP identification and user identification are entered into the accounting (billing) register and decryption of the IP is commenced. During decryption, the IP specific dictionary is constructed from the cleartext information. Once the specific dictionary is completed, the control unit decompresses the IP test as it leaves the decryption processor.

The decrypted and decompressed text of the IP is written into the control unit buffer. When the IP processing is complete, the user unit is notified that the IP is ready for loading via the SCSI bus. Also, if the billing register is not full, the user unit is also notified.

The cleartext IP is then transmitted to the user unit if it is free to receive this information. If the user unit is unable to unwilling to respond, the IP is temporarily stored into the back-up storage unit **110**.

The pay-per-package accounting system in the information distribution system according to the present invention is illustrated in FIG. **15**. At periodic intervals, or when the billing register is nearly full, the control unit transfers the billing register contents to the user unit for transfer to the central accounting office. Prior to transfer, the control unit generates a verification block key and determines the billing register verification block to provide security for the billing register contents.

The user unit then dials up the central office via its modem and the telephone line and transfers the verification key, billing register contents and the verification block to the central office. The verification block is checked at the central office to ensure that the transmitted data is valid. If the data is not valid, the central office requests the retransmission of the billing data block.

Once valid information is transmitted, the central accounting office invoices the user for the information selected, retrieved and used. For example, the central office can print and mail an itemized invoice, or it can transmit the invoice directly to the user unit via the telephone connection for printing at the user unit.

Thereafter, the central office determines the next message key and then enciphers a "clear billing register" message with this message key. The enciphered message is then transmitted to the user unit which, in turn, passes it directly to the control unit. The control unit loads the message key, deciphers the message and carries out the command to clear the billing register. Finally, the control unit instructs the user unit to terminate the telephone connection.

In the case where the information packages (IP's) are transmitted by broadcast, the total length of an IP header block is preferably 64 bytes. The first 12 bytes are a synchronization string to allow a receiver to synchronize to the broadcast data stream. The next 2 bytes are the block count of the IP (its length in units of 32 byte blocks, not including the header block). The next 12 bytes are a message key. The following 22 bytes contain the article identification and classification information. The next 8 to 12 bytes are a checksum for the IP described by the header. The last 8 to 4 bytes are a checksum of the IP header itself. These checksums allow the validation of the IP and the IP header.

It should be emphasized that the IP header format may be varied, as desired, in accordance with the system requirements.

The preferred byte allocation is shown in the following Table:

TABLE I

Broadcast IP Header	
XXXX	
XXXX	synchronization block
XXXX	
XX	IP block count
XXXX	message key
XXXX	
XX	
XXXX	
XXXX	IP identification and
XXXX	classification information
XXXX	
XXXX	
XXXX	
XXXX	IP validation block
XXXX	
XXXX	IP header validation block

In the case of archival information packages (IP's), much less header information is needed. If the user software accesses the abstracts/headnotes, the information that is needed in the IP header is the message key, an IP identification number, and an IP validation block. This permits the use of a 32 byte header block.

The IP according to the present invention thus has a simple 3 part structure: The header block, the compressed dictionary, and the text block. If H represents the header block, D represent data blocks in the dictionary, and T represents data blocks in the text portion of the IP, the IP can be diagrammed in the following manner. The simplest structure for the IP is the header, followed by the dictionary, followed by the text block:

HDDDDDDDDDDDDDDDDDDDDDDDDDD-
DDDDDTTTTTTTTTTTTTTTTTTTTTTTT-
TTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTT-
TTTTTTTTTTTTTTTTTTTTTTTTTTTTT

If block transposition is used to disrupt the message structure and increase the cryptographic resistance of the system, this simple structure is made apparently random, although the header will still appear as the lead block:

HTTDTTTDTDTTTTTTTTTDDTTTTTTTDTT-
TDTTTTTDTTTDDTTTTTTTTTDTTTTTD
DDTTTTDTTTTTTTTTDTDTTDTTTDDDTT-
TTDTTTTDTTTTDTTDTDTTTDTTTTDTDT
DTTTDTDTTDTTTDTTT

In this case it is necessary to use the keys to determine the transpose mapping so that the blocks can be fed through the decryption and decompression processors in the correct order.

The accounting (billing) register structure is also quite simple. This register contains a list of user access codes (if any), the associated IP identification numbers, as well as the IP prices, if desired (although the central billing office can look the prices up in its central databank.) The advantage of providing IP prices at the user site is for user convenience in selecting each IP and to maintain a local billing total that registers the current total billing amount. It is unlikely that publishers will want any more information be provided to users. 12